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EXAMINER

NGUYEN, LEE

ART UNIT

PAPER NUMBER

2682

DATE MAILED: 07/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/634,488

Applicant(s)

MAKELA ET AL.

Examiner

LEE NGUYEN

Art Unit

2682

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 May 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,12,13,15,20-42 and 51-115 is/are pending in the application.
- 4a) Of the above claim(s) 21-41 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,12,13,15,20,42 and 51-115 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This action is responsive to the communication filed 5/6/2005.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 42, 51, 59-60, 70-72, 85-86, 109-113 are rejected under 35 U.S.C. 102(e) as being anticipated by Forslow (US 2003/0039237).

Regarding claim 1, Forslow teaches a method for selecting a bearer service

for use in communication between a mobile network and an

application program that is executed in a mobile terminal (fig. 3), the mobile terminal comprising an application

execution environment for executing application

programs provided by a manufacturer of the mobile terminal [0021], and the mobile network providing at least one bearer service [0023], [0025], the method comprising operating the mobile execution environment to gathering from the application program a set of requirements for a bearer service to be selected for use in communication between the application program and the mobile network (mapper, [0023], [0076]); obtaining information about bearer services selectable in the mobile network [0073]; performing a comparison between said set of requirements for a bearer service and said information obtained about bearer services selectable in the mobile network in order to determine whether any of said selectable bearer services substantially fulfils said set of requirements for a bearer service (mapper, [0076]); and selecting a selectable bearer service which substantially fulfils said set of requirements for a bearer service as a bearer service for use in communication between the application program and the mobile network ([0027], [0028], [0076], [0077]).

Regarding claim 42, the claim is interpreted and rejected for the same reason as set forth in claim 1.

Regarding claim 51, Forslow also teaches that the application to be started provides the execution environment with information about its bearer service requirements via said logical interface in a formatted data packet ([0073], [0026], [0095]).

Regarding claim 59, Forslow also teaches that said comparison to determine whether any of said selectable bearer services substantially fulfils said set of requirements for a bearer service is performed in the mobile network ([0028]).

Regarding claim 60, Forslow also teaches that said comparison to determine whether any of said selectable bearer services substantially fulfils said set of requirements for a bearer service is performed in the mobile terminal, [0028].

Regarding claim 70, Forslow also teaches that the application execution environment informs an application about a bearer service granted for the application ([0023], [0076], [0095]).

Regarding claim 71, Forslow also teaches that the application execution environment provides the application with information about the granted bearer service in a formatted data packet ([0023], [0076], [0095]).

Regarding claim 72, Forslow also teaches that at least one quality of service class is defined in the mobile network and at least one bearer service is defined for said at least one quality of service class ([0023], [0076], [0095]).

Regarding claim 85, Forslow also teaches that the application execution environment is arranged to receive information about bearer service requirements of said application to be started via said logical interface ([0026], 0076]).

Regarding claim 86, Forslow also teaches that the application execution environment is arranged to communicate information about a selected bearer service to said application to be started via said logical interface ([0026], 0076]).

Regarding claim 109, Forslow also teaches logical interface (mapper, [0023], [0076]).

Regarding claim 110, Forslow also teaches that a service request starts the application program activating the execution environment to gather said set of requirements ([0068], [0076]).

Regarding claim 111, Forslow also teaches the logical interface (mapper, [0076]).

Regarding claim 112, Forslow also teaches gathering the set of requirements responsive to a start of the application program [0076].

Regarding claim 113, the claim is interpreted and rejected for the same reason as set forth in claim 1.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 12-13, 15, 20, 52-58, 61-69, 73-84, 87-108, 114-115 are rejected under 35 U.S.C. 103(a) as being unpatentable over Forslow (US 2003/0039237) in view of Olofsson et al. (US 6,647,265).

Regarding claim 12, Forslow fails to teach the steps of forming, sending, forming and sending, respectively. Olofsson teaches forming a bearer service request network message in the mobile terminal on the basis of said set of requirements for a bearer service (col. 1, 20); sending said bearer service request network message to the mobile network (col. 1, 20, col. 2, 24); forming a bearer service reply network message in the mobile network on the basis of said selectable bearer services and said bearer service request network message (col. 2, 31, negotiation), and sending said bearer service reply network message to the mobile terminal (see satisfied requirement, col. 2, lines 35-38). It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the service negotiation of Olofsson to the system of Forslow so that users can obtain flexible services.

Regarding claims 13 and 15, Forslow as modified by Olofsson teaches the renegotiation (col. 2, 24), comprising: defining a new set of requirements for lea bearer service to be selected for use in communication between the application program and the mobile network; forming a bearer service request: network message in the mobile terminal on the basis of said new set of requirements; sending said bearer service request network message to the mobile network; forming a bearer service reply network message in the mobile network on the basis of said bearer service request network message and said bearer services selectable in the mobile network; comprising a suggestion for a new bearer service to be used in communication between the mobile terminal and the mobile network; sending said bearer service reply network message to the mobile terminal; and performing one of the following steps in the mobile terminal: either accepting the suggestion for a new bearer service, if said new bearer service substantially fulfils the new set of requirements for a bearer service, whereupon communication between the application program and the mobile network is continued with said new bearer service,

or rejecting the suggestion for a new bearer service, if said new bearer service does not substantially fulfill the new set of requirements for a bearer service, whereupon communication between the application program and the mobile network is terminated (see col. 2, lines 24-55, re-negotiation which inherently includes a new set of requirements and the above steps).

Regarding claim 20, Olofsson also teaches that the user of the mobile terminal is informed of the selectable bearer services, wherein the user can perform the selection of a bearer service (col. 2, lines 35-38).

Regarding claim 52, Olofsson also teaches that the application execution environment further gathers information about bearer service requirements from the mobile terminal via an interface between the application execution environment and an information store comprising information about properties of the mobile terminal (col. 1, lines 20-37).

Regarding claim 53, Olofsson also teaches that the application execution environment further gathers information about bearer service requirements of the mobile terminal from the mobile network (col. 2, 24-41, col. 8, lines 55-60).

Regarding claim 54, Olofsson also teaches that the application execution environment further gathers information about bearer service

requirements via an interface between the application execution environment and an information store comprising information about user preferences (col. 1, lines 20-45, 58).

Regarding claim 55, Olofsson also teaches that the application execution environment further gathers information about bearer service requirements from a user of the mobile terminal via a user interface of the mobile terminal (col. 1, lines 20-58).

Regarding claim 56, Olofsson also teaches the application execution environment further gathers user subscription information from the mobile network (col. 1, lines 20-58, col. 4, 30-31).

Regarding claim 57, Olofsson also teaches that the application execution environment priorities said set of requirements for a bearer service (col. 2, lines 15-22).

Regarding claim 58, Olofsson also teaches that the application execution environment resolves contradictory requirements in said set of requirements for a bearer service (col. 2, lines 51-54).

Regarding claim 61, Olofsson also teaches that the subscription information of the user is examined in connection with performing said comparison (col. 1, lines 30-37, col. 2, 24-41).

Regarding claim 62, Olofsson also teaches that the subscription information of the user is examined in connection with performing said comparison (col. 1, lines 30-37, col. 2, 24-41, col. 4, 31).

Regarding claim 63, Olofsson also teaches that the traffic condition of the mobile network is examined in connection with performing said comparison (col. 2, lines 46-55).

Regarding claim 64, Olofsson also teaches that the traffic condition of the mobile network is examined in connection with performing said comparison (col. 2, lines 46-55).

Regarding claim 65, Olofsson also teaches that a capability of a remote network is examined in connection with performing said comparison (col. 3, lines 19-24, col. 2, 27).

Regarding claim 66, Olofsson also teaches that a capability of a remote network is examined in connection with performing said comparison (col. 3, lines 19-24, col. 2, 27).

Regarding claim 67, Olofsson also teaches that the application execution environment forms said bearer service request network message (col. 1, lines 25-27).

Regarding claim 68, Olofsson also teaches that the application execution environment receives and processes said bearer service reply network message (col. 1, lines 25-27, col. 2, 23-38).

Regarding claim 69, Olofsson also teaches that said bearer service reply network message comprises a suggestion for a bearer service to be selected for communication (col. 2, lines 35-38, col. 4, 25-51).

Regarding claim 73, Olofsson also teaches that a preferred quality of service class is defined for the application program (col. 1, line 46 through col. 2, 27).

Regarding claim 74, Olofsson also teaches that information about said preferred quality of: service class defined for said application program is included in said set of requirements for a bearer service and is sent to the mobile network in said bearer service request network message (col. 1, line 46 through col. 2, 27).

Regarding claim 75, Forslow as modified by Olofsson also teaches that a renegotiation phase is performed in order to select a new bearer service for communication between the mobile terminal and the mobile network (col. 2, lines 51-55 of Olofsson).

Regarding claim 76, Forslow as modified by Olofsson also teaches that said renegotiation phase is initiated by one of the following: an application running in the mobile terminal; a user of the mobile terminal (col. 2, lines 51-55 of Olofsson).

Regarding claim 77, Forslow as modified by Olofsson also teaches that said renegotiation phase is performed when at least one bearer service requirement of the application has changed (col. 9, lines 33-39 of Olofsson).

Regarding claim 78, Olofsson also teaches that the application execution environment defines said new set of requirements for a bearer service (col. 2, lines 46-55).

Regarding claim 79, Olofsson also teaches that the application execution environment forms said bearer service request network message (col. 2, lines 46-55).

Regarding claim 80, Olofsson also teaches that the application execution environment provides the application with information about the new bearer service (col. 2, lines 46-55).

Regarding claim 81, Olofsson also teaches that the application execution environment provides the application with information about the new bearer service in a formatted data packet (col. 2, lines 46-55).

Regarding claim 82, Olofsson also teaches that the application performs said steps of accepting or rejecting the new bearer service (col. 2, lines 46-55).

Regarding claim 83, Olofsson also teaches that said renegotiation phase is performed when at least one property of the mobile terminal has changed (col. 9, lines 13-26, 22-29, col. 1, 20-37).

Regarding claim 84, Olofsson also teaches that said renegotiation phase is initiated by the mobile network (col. 9, lines 37-39).

Regarding claim 87, Olofsson also teaches that the application execution environment is arranged to receive information about a change in a property of said application via said interface (col. 9, lines 33-39).

Regarding claim 88, Olofsson also teaches that the application execution environment is arranged to communicate information about a change in a bearer service to said application via said interface (col. 9, lines 33-39, col. 6, 6-20).

Regarding claim 89, Olofsson also teaches an interface for communicating information about at least one property of the mobile terminal to said application execution environment (col. 1, (col. 1, lines 20-37).

Regarding claim 90, Olofsson also teaches that the application execution environment is arranged to receive via said interface information about said at least one property of the mobile terminal from an information store in the mobile terminal comprising information about properties of the mobile terminal (col. 1, lines 34-45, col. 9, lines 33-39).

Regarding claim 91, Olofsson also teaches that the application execution environment is arranged to receive information about a property of the mobile terminal from the mobile network (col. 1, lines 34-45, col. 9, lines 33-39).

Regarding claim 92, Olofsson also teaches comprising an interface for communicating information about at least one user preference to said application execution environment (col. 1, lines 20-45).

Regarding claim 93, Olofsson also teaches that the application execution environment is arranged to receive via said interface information about said preference of a user from an information store comprising

information about user preferences (col. 1, lines 20-45).

Regarding claim 94, Olofsson also teaches that the application execution environment is arranged to receive information about a preference of a user as input from the user via a user interface of the mobile terminal (col. 1, lines 25-27, and 58).

Regarding claim 95, Olofsson also teaches comprising a user interface for informing a user of selectable bearer services (col. 2, lines 38-41 and col. 5, lines 10-29, col. 6, 31, renegotiated, inherently include user interface).

Regarding claim 96, Olofsson also teaches comprising a User interface for enabling a user to select a bearer service (col. 2, lines 38-41 and col. 5, lines 10-29, col. 6, 31, renegotiated, inherently include user interface for selection).

Regarding claim 97, the claim is interpreted and rejected for the same reason as set forth in claim 56.

Regarding claim 98, the claim is interpreted and rejected for the same reason as set forth in claim 57.

Regarding claim 99, the claim is interpreted and rejected for the same reason as set forth in claim 58.

Regarding claim 100, the claim is interpreted and rejected for the same reason as set forth in claim 12.

Regarding claim 101, the claim is interpreted and rejected for the same reason as set forth in claim 67.

Regarding claim 102, the claim is interpreted and rejected for the same reason as set forth in claim 68.

Regarding claim 103, the claim is interpreted and rejected for the same reason as set forth in claim 1.

Regarding claim 104, the claim is interpreted and rejected for the same reason as set forth in claim 13.

Regarding claim 105, the claim is interpreted and rejected for the same reason as set forth in claim 78.

Regarding claim 106, the claim is interpreted and rejected for the same reason as set forth in claim 79.

Regarding claim 107, the claim is interpreted and rejected for the same reason as set forth in claim 80.

Regarding claim 108, the claim is interpreted and rejected for the same reason as set forth in claim 81.

Regarding claim 114, the claim is interpreted and rejected for the same reason as set forth in claim 75 in which Olofsson also teaches both negotiation and renegotiation in col. 2, lines 31-35 and col. 6, lines 15-33.

Regarding claim 115, the claim is interpreted and rejected for the same reason as set forth in claim 114.

Response to Arguments

6. Applicant's arguments filed 5/6/2005 have been fully considered but they are not persuasive.

In the remarks, Applicant contends that Forslow fails to disclose or suggest operating a mobile execution environment gather from an application program a set of requirements for bearer service to be selected for use in communication between the application program and a mobile network, as recited by claims 1 and 113. Forslow also fails disclose or suggest an application execution environment arranged to gather from an application program a set of requirements for a bearer service to be selected for use communication between the application program and a mobile network, as recited by claim 42. In contrast, the mobile terminal device as claimed in the

present application includes an application execution environment for executing application programs provided by a manufacturer of the mobile terminal or third party manufacturers, the application execution environment being arranged to gather from an application program a set of requirements for a bearer service to be selected for communication between the application program and a mobile network. It should be appreciated that the application execution environment of the present application and the mapper disclosed by Forslow provide significantly different functionality and cannot be equated. In particular, and as would be well known to a person of ordinary skill in the art, the term "application execution environment" as used in the claims of the present application refers to a specific type of standardised execution environment for a mobile terminal device that allows applications to be developed independently of the particular software platform implemented in the device (see, for example, 3G Partnership Project (3GPP) specification TS 22.057 "Mobile Execution Environment (MexE)"). Forslow's mapper is not this

kind of application execution environment and while it does play a role in the selection of bearer services for individual application flows, it does not provide applications with any degree of independence from the underlying platform of the terminal device. At least Forslow's disclosure is completely silent on this topic and cannot therefore be considered to provide any direct teaching or suggestion that would anticipate the invention as claimed in the present application.

In response, the examiner respectfully disagrees. The mobile execution environment is just a software program that is to be controlled and run by a CPU in a mobile station (see Applicant's specification page 11, lines 33-34). The mapper in the mobile station of Forslow also provides the same function, i.e. selecting either packet switch or circuit switch based upon the application program and its quality of service. Therefore, Forslow does anticipate claims 1, 42 and 113.

Applicant further argues that Olofsson discloses how "a user's requirements" for a quality of service (QoS) may be provided to a computer or a computer application which then negotiates with the

bearer (column 1, lines 24-27). In contrast, in the present invention, bearer service requirements are gathered from application programs by the application execution environment, which then conducts bearer service negotiation with the mobile network.

Again, as mention, supra, the software execution environment that runs by a CPU in a mobile station as demonstrated by Forslow.

Applicant further argues that they are unsure why the Examiner chose to reject these claims based on the rejection of claim 75 with respect to the combination of Forslow with Olofsson. More specifically, claim 75 refers to performing a "renegotiation phase", while independent claim 114 concerns performing a "bearer renegotiation phase" and, together with claim 115, which is dependent upon it, cannot be rejected on the basis of the arguments put forward with respect to claim 75.

In response, the rejection of claims 75 and 114 has been revised in which Olofsson also teaches both negotiation and renegotiation in col. 2, lines 31-35 and col. 6, lines 15-33.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LEE NGUYEN whose telephone number is (571)-272-7854. The examiner can normally be reached on 8:00 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, NICK CORSARO can be reached on (571)-272-

7876. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

 7/20/05
LEE NGUYEN
Primary Examiner
Art Unit 2682